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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/492,178

01/27/2000

Joseph S. Hayden

SGT-39

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03/28/2003

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
2200 CLARENDON BLVD.  
SUITE 1400  
ARLINGTON, VA 22201

EXAMINER

JACKSON, CORNELIUS H

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/492,178

Applicant(s)

HAYDEN ET AL.

Examiner

Cornelius H. Jackson

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
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## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Acknowledgment***

1. Acknowledgment is made that applicant's Amendment, filed on 18 October 2002, has been entered. Upon entrance of the Amendment, claims 16-36 were added. Claims 1-36 are now pending in the present application.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-7, 16, 18 and 22-32 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for at least two of the waveguides being

Art Unit: 2828

defined by channels having differing widths such that they have different and distinct effective refractive indices from each other, does not reasonably provide enablement for at least two of the waveguides are defined by channels having differing widths (such as widths that taper, buldge, arc, etc.) such that they have distinct effective refractive indices from each other. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. No matter if the channels may have different or the same widths, each channel will have its own distinct effective refractive indices.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the substrate and the waveguides are in relationship with the laser species. Note that the claims fail to recite location/position of the waveguide with respect to the substrate.

8. Claims 8-15, 17, 19-21 and 33-36 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting

Art Unit: 2828

to a gap between the steps. See MPEP § 2172.01. The omitted steps are: how to prepare an optical device, heating what or how is the waveguide provided.

9. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claiming what a laser amplifier form is. Examiner view these claims as an attempt to claim how the invention is to be used; therefore, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by McFarland et al. (5541039). McFarland et al. disclose a method of modifying the wavelength comprises heating the substrate, **see col. 2, lines 14-45.**

Regarding claim 13, McFarland et al. discloses the stated limitation, **see col. 2, lines 14-45.**

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 14, 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McFarland et al. (5541039) in view of Myers (5164343). McFarland et al., as applied to claims 12 and 13 above, teach all the stated limitations except for the heating rate of the substrate and the material used for the substrate. Myers discloses one skilled in the art at the time the invention was made would use an alkali phosphate glass doped with Er and Yb to provide good thermal shock resistance, **see abstract and col. 2, lines 40-68.**

Regarding claims 14, 20 and 21, it has been held that “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Since the change in temperature of a material is only known characteristic property of that material.

13. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCallion et al. (6270604). McCallion et al. discloses an optical device **Fig. 1** comprising a glass substrate **14** doped with a laser species and having a waveguide **12** defined by channels in the substrate **14** having a distinct refractive index from the substrate **14**, **see**

Art Unit: 2828

**col. 3, lines 10-40**, wherein the channels having differing widths such that they have distinct effective refractive indices from each other, **see col. 5, line 47-col. 6, line 13 and col. 34, line 65-col. 36, line 43**. McCallion et al. fail to disclose two or more waveguides, instead McCallion et al. teach that those skilled in the art may fabricate waveguides having other cross-sectional configurations depending on the particular application and the desired propagation of an optical signal, **see col. 7, lines 13-23**.

14. Claims 2-5, 8-11, 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCallion et al. (6270604) as applied to claim 1 above, and further in view of Myers (5164343). McCallion et al. teach all the stated limitations except that the glass substrate **14** is doped with Er and Yb. Myers teach the waveguides are comprised of an alkali phosphate glass doped with Er and Yb, **see col. 2, lines 40-68**. It would have been obvious to one skilled in the art at the time the invention was made would use an alkali phosphate glass doped with Er and Yb to provide good thermal shock resistance, **see abstract and col. 2, lines 40-68**.

Regarding claim 3, Myers teach the waveguides are comprised of an alkali phosphate glass doped with Er and Yb, which has been treated so that the refractive index is higher than that of the substrate, **see col. 2, lines 40-68**.

Regarding claims 4 and 5, the presence of process limitations on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

Regarding claims 16-18, McMallion et al. teach the glass substrate is doped with a laser species selected from the group, **see col. 6, lines 49-56**.

Art Unit: 2828

Regarding claims 8-11, 17 and 19, the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, the rejection used against the device, stands for the method as well.

### ***Double Patenting***

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 2-7, 16, and 22-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-7, 10, 18, 21, 27, 36, 37 and 40-54, of U.S. Patent No. 6,430,349 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention fails to add any additional structural limitation to the claims in order to distinguish the claimed invention from that claimed in U.S Patent No. 6,430,349 B1.



Art Unit: 2828

***Response to Arguments***

17. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



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